image

AF/1772

AVERP2808USA

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:			
	Hannington et al.	Group No:	1772
Serial No:	09/742,653	Examiner:	B. Egan
Filed:	December 21, 2000		

For: **ADHESIVE ARTICLES WITH IMPROVED AIR EGRESS AND METHODS OF MAKING THE SAME**

Mail Stop Appeal Brief Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION - 37 CFR 192)

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on January 14, 2004 .

2. **STATUS OF APPLICANT**

This application is on behalf of

[X] other than a small entity
[ ] small entity

CERTIFICATE OF MAILING (37 CFR 1.8(a))

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Denise G. Gunvalsen
(Type or print name of person mailing paper)

Date: March 16, 2004

Denise G. Gunvalsen
(Signature of person mailing paper)

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

[ ] small entity $165.00

[X] other than a small entity $330.00

Appeal Brief fee due $330.00

4. EXTENSION OF TERM

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

(a) [ ] Applicant petitions for an extension of time under 37 CFR 1.17(a)-(d) for the total number of months checked below:

	Extension (months)	Fee for other than small entity	Fee for small entity
[ ]	one month	$ 110.00	$ 55.00
[ ]	two months	$ 420.00	$210.00
[ ]	three months	$ 950.00	$475.00
[ ]	four months	$1,480.00	$740.00

Fee $_____

If an additional extension of time is required please consider this a petition therefor.

[ ] An extension for _____ months has already been secured and the fee paid therefor of $_____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request $_____

or

(b) [X] Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that Applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. **TOTAL FEE DUE**

The total fee due is:

Appeal Brief fee $330.00

Extension fee (if any) $

TOTAL FEE DUE $330.00

6. **FEE PAYMENT**

[X] Attached is a check in the sum of $ 330.00

[ ] Charge Account No. _____ the sum of $_____
A duplicate of this transmittal is attached.

7. **FEE DEFICIENCY**

[X] If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 18-0988.

AND/OR

[X] If any additional fee for claims is required, charge Account No. 18-0988.

Heidi A. Boehlefeld
SIGNATURE OF ATTORNEY

Reg. No: 34,296

Heidi A. Boehlefeld
Type or print name of attorney

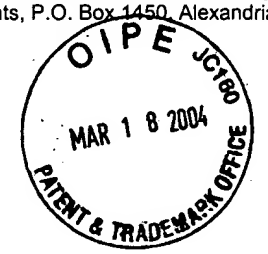
Tel. No: (216) 621-1113

RENNER, OTTO, BOISSELLE & SKLAR, LLP
1621 Euclid Avenue
Nineteenth Floor
Cleveland, Ohio 44115

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper or thing referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Denise G. Gunvalsen
(Name)
Denise G. Gunvalsen
(Signature of person mailing)



March 16, 2004
(Date)

Docket AVERP2808USA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS

In re application of Hannington et al.	:	Group Art Unit: 1772
Serial No: 09/742,653	:	Examiner: B. Egan
Filed: December 21, 2000	:	

For: ADHESIVE ARTICLES WITH IMPROVED AIR EGRESS AND METHODS OF MAKING THE SAME

Mail Stop Appeal Brief Patents
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPLICANTS' BRIEF ON APPEAL

Dear Sir:

Table of Contents

I. REAL PARTY IN INTEREST

The real party in interest is Avery Dennison Corporation, 150 North Orange Grove Boulevard, Pasadena, California 91103, the assignee of the above-captioned application.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the instant appeal.

III. STATUS OF THE CLAIMS

Claims 35-40, 42, 43 and 46-77 are pending in the application. Claims 1-30 have been cancelled. The pending claims are reproduced in the attached APPENDIX.

This is an appeal from the final Office Action of October 27, 2003 rejecting claims 35-40, 42, 43 and 46-77 in the above-identified application.

IV. STATUS OF AMENDMENTS

An amendment under 37 C.F.R. 1.116 was filed on March 15, 2004 to cancel claims 1-30 which were previously withdrawn from consideration.

V. SUMMARY OF THE INVENTION

The present invention is directed to adhesive articles that are useful for making industrial graphics and large adhesive backed films, including decorative films with improved air egress, as well as repositionability and slidability (page 2, paragraph 0005, page 15, paragraph 0042). The adhesive article generally comprises a release liner having a top release surface into which is embedded a pattern of non-adhesive material forms; and a continuous layer of adhesive having a bottom surface and a top surface, with the bottom surface adhered to the top release surface of the release liner. A facestock film is adhered to the top surface of the adhesive layer (page 4, paragraph 0015 and Figs. 1b, 2b, 3a, 4b and 5b).

The non-adhesive material forms may be embedded into the release liner so that the upper surfaces of the non-adhesive material forms are substantially even with the

upper release surface of the release liner (page 20, paragraph 0052, Figs. 1b, 2b, 4b, and 6b). Alternatively, the non-adhesive material forms are embedded into the release liner so that the upper surfaces of the non-adhesive material forms are below the surface of the release surface of the release liner (Fig. 3a). The non-adhesive material forms may comprise a polymeric ink (page 4, paragraph 0016, page 10, paragraph 0032). The non-adhesive material forms may also comprise a pattern of metalized or sputtered deposits (page 10, paragraph 33).

In one embodiment of the invention, the release liner has a textured surface (page 14, paragraph 0039, Fig. 2b). The pattern of non-adhesive material forms may comprise a plurality of dots, lines or combinations thereof (page 9, paragraph 0030).

Upon removal of the release liner, the non-adhesive material forms remain adhered to the adhesive layer (page 19, paragraph 0050) and extend beyond the surface of the adhesive layer (page 15, paragraph 0042 to page 16, paragraph 0043 and Figs. 1a, 2a, 3b, 4c, 5 and 6c). For repositionability and slidability, as well as air egress, the non-adhesive material extending beyond the adhesive layer need only be sufficient to prevent contact of the adhesive layer with the substrate.

VI. ISSUES ON APPEAL

The claims on appeal stand rejected under 35 U.S.C. §103(a). The issues in the appeal are as follows:

A. Whether claims 31-33, 35-40, 42, 46-52, 55 and 59 are obvious over Rusincovitch et al., U.S. Patent 5,676,787.

B. Whether claims 31-33, 35-40, 42, 43, 46, 49-53, 55 and 59 are obvious over Calhoun et al., U.S. Patent 5,141,790 in view of Rusincovitch et al., U.S. Patent 5,676,787.

C. Whether claims 47 and 48 are obvious over Calhoun et al., U.S. Patent 5,141,790 in view of Rusincovitch et al., U.S. Patent 5,676,787, and further in view of Plamthottam et al., U.S. Patent 5,180,635.

D. Whether claims 54 and 56-58 are obvious over Calhoun et al., U.S. Patent 5,141,790 in view of Rusincovitch et al., U.S. Patent 5,676,787, and further in view of Calhoun et al., U.S. Patent 5,585,178.

E. Whether claims 60-62, 66-72 and 74 are obvious over Calhoun et al., U.S. Patent 5,141,790 in view of Torobin, U.S. Patent 4,582,534.

F. Whether claims 63-65 are obvious over Calhoun et al., U.S. Patent 5,141,790 in view of Torobin, U.S. Patent 4,582,534, and further in view of GB 1,511,060.

G. Whether claims 73 and 75-77 are obvious over Calhoun et al., U.S. Patent 5,141,790 in view of Torobin, U.S. Patent 4,582,534, and further in view of Calhoun et al., U.S. Patent 5,585,178.

VII. GROUPING OF THE CLAIMS

For the purposes of this Appeal, Applicants believe that the claims should stand or fall together.

VIII. ARGUMENT

A. Claims 31-33, 35-40, 42, 46-52, 55 and 59 are not obvious (35 USC §103(a)) over Rusincovitch et al. (U.S. Patent 5,676,787).

The Examiner's Rejection:

The Examiner has maintained that Rusincovitch (U.S. 5,676,787) discloses an adhesive article comprising a release liner, a continuous layer of adhesive adhered to the release liner and a pattern of non-adhesive material forms embedded into the release surface of the release liner. The Examiner has relied, in part, on Figure 4B of Rusincovitch as support for his position that the non-adhesive forms are embedded into the release surface. The Examiner has also relied on Applicants' specification for a teaching to modify the article of Rusincovitch. The Examiner contends that, in the absence of unexpected results, Rusincovitch et al. teach an equivalent method of forming the release liner and the non-adhesive material forms would inherently become embedded to a height equal to or below the top plane of the release liner given the equivalence in the method of forming the release liner, i.e., the use of rollers prior to the application of the adhesive layer.

The Examiner further contends that even if Rusincovitch et al. fails to fully embed the non-adhesive ink into the release liner, it would have been obvious to "have rearranged the parts of the invention such that the non-adhesive ink was fully embedded

into the release liner, since it has been held that rearranging parts of an invention involves only routine skill in the art, absent a demonstration of unexpected results." The Examiner has cited In re Japikse 86 USPQ 70 as support for his position.

Applicants' Response and Remarks:

Applicants respectfully submit that there is no basis for the Examiner's conclusion that the articles of Rusincovitch would "inherently become embedded to a height equal to or below the top plane of the release liner". Rusincovitch does not disclose, teach or suggest embedding a pattern of non-adhesive material forms in the release surface of the release liner. Rather, Rusincovitch teaches that the non-adhesive forms are printed on the surface of the release liner. (Col. 5, line 66 to col. 6 line 3; and col. 6, lines 57-59) Figure 4B of Rusincovitch shows the non-adhesive forms on the surface, and not embedded into the release liner. Rusincovitch further states at column 6, lines 60-61 that the printed ink spacers protrude from the flat surface of the release liner. The rollers of Rusincovitch that the Examiner has referred to (e.g., rollers 56 and 58 in Figures 3 and 7, and rollers 56, 82, 86 and 88 in Figure 4A) are not disclosed nor suggested as being capable of embedding the printed spacers into the release liner. Upon rolling of the adhesive article of Rusincovitch, the pattern of non-adhesive spacers transfers from the release coating to the adhesive coating. (Col. 4, lines 56-58.) Rusincovitch does not disclose, teach or suggest that the spacers are fully embedded into the release coatings such that the upper surface of the spacers is even with or below the plane of the upper surface of the release coating.

The apparatus of Rusincovitch shown in Figure 3 and the corresponding disclosure (col. 5, lines 24-61) does not include embossing rollers. Rather, the printed release liner is advanced through the apparatus with idler rollers 56 and 58. The apparatus of Rusincovitch shown in Figures 4A and 7 and the corresponding disclosures (col. 6, lines 5-10 and col. 7, lines 7-13, respectively) also do not include embossing rollers. While each of the apparatus of Figures 4A and 7 include a station for combining the substrate and the printed release liner by passing the moving release liner and substrate through a rubber nip roller 82 and a cooling can, there is no disclosure or suggestion that the release liner is heated and that sufficient pressure is exerted to embed the spacers fully into the release

liner. Rather, the spacers are transferred to the adhesive surface from the release surface of the liner. (Col. 12, lines, 4-6).

The Examiner has presented no scientific or legal basis for concluding that the process of Rusincovitch is equivalent to Applicants' disclosed process such that the non-adhesive material forms would "inherently become embedded to a height equal to or below the top plane of the release liner given the equivalence in the method of forming the release liner". In the process for making Applicants' claimed adhesive articles, embedding temperatures are typically in the range of about 150° to about 300°F and the embedding pressure is typically between 25 to about 150 psi, with lower embedding pressure required for higher embedding temperatures. (See paragraphs 0048 and 0049 of the specification.) The pressure exerted by the idler rollers and nip rollers of Rusincovitch onto the printed release liner is insufficient to embed the spacers of Rusincovitch into the release liner. Therefore, the process of Rusincovitch is not equivalent to the process by which the adhesive article of the present invention is made and further, the process of Rusincovitch would not inherently result is the claimed adhesive article.

The rejection of the claims under 35 USC §103(a) on the basis on inherency must be reversed by the Board of Appeals. It is well known that when a prior art reference does not expressly set forth a particular element of the claim, the reference may still anticipate if that element is "inherent" in its disclosure. However, as noted by the Federal Circuit in In re Robertson, 49 USPQ 2d 1949, 1950 (Fed. Cir. 1999),

> To establish inherency, the extrinsic evidence "must make it clear that the missing descriptive matter is necessarily present in the thing described in the reference and that it would be so recognized by persons of ordinary skill" Continental Can Co. v. Monsanto Co., 948 F2d 1264, 1268, 20 USPQ 2d 1747, 1749 (Fed. Cir. 1991).
>
> Inherency however, may not be established by a probability or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. Id at 1269, 20 USPQ 2d at 1749 (quoting In re Oelrich, 666 F2d 578, 581, 212 USPQ 323, 326 (CCPA 1981)).

The Examiner must provide a basis in fact and/or technical reasoning to reasonably support a determination that the allegedly inherent characteristics necessarily flow from the teachings of the prior art. Ex parte Levy, 17 USPQ 2d 1461 (BPAI 1990). Because the Examiner has provided no such support, claims 31-33, 35-40, 42, 46-52, 55 and 59 cannot be found to be obvious based on Rusincovitch.

With regard to the Examiner's contention that "even if Rusincovitch et al. fails to fully embed the non-adhesive ink into the release liner, it would have been obvious to "have rearranged the parts of the invention such that the non-adhesive ink was fully embedded into the release liner, since it has been held that rearranging parts of an invention involves only routine skill in the art, absent a demonstration of unexpected results" and his reliance on In re Japikse 86 USPQ 70 (CCPA 1950) as support for his position, Applicants respectfully submit that the Examiner's contention is without reason. In re Japikse, is not applicable or relevant to the particular situation. In In re Japikse, claims to a hydraulic power press that read on the prior art except with regard to the position of the starting switch were held unpatentable because shifting the position of the starting switch would not have modified the operation of the device. In the present invention, "shifting the position" of the non-adhesive material forms would significantly modify the operation of the adhesive article. The characteristics of air-egress, repositionability and slidability depend on the position of the non-adhesive material forms relative to the adhesive surface of the adhesive layer. (See paragraph 0042, lines 7-9 of the specification.) Furthermore, even if "shifting the position" of the non-adhesive material forms did not modify the operation of the adhesive article, there is no motivation provided by Rusincovitch to provide such modification. As noted by the Board of Patent Appeals and Interferences:

> "The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of applicant's specification, to make the necessary changes in the reference device." Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

Because Rusincovitch does not teach, disclose or suggest an adhesive article wherein the non-adhesive material forms are embedded into the release liner so that the upper surface of the non-adhesive material forms is even with or below the surface of the release surface of the release liner, the rejection of claims 31-33, 35-40, 42, 46-52, 55 and 59 based on Rusincovitch should be reversed.

B. Claims 31-33, 35-40, 42, 43, 46, 49-53, 55 and 59 are not obvious over Calhoun et al. (U.S. Patent 5,141,790) in view of Rusincovitch et al. (U.S. Patent 5,676,787).

The Examiner's Rejection

The Examiner has maintained that Calhoun et al. (US 5,141,790) discloses an adhesive article comprising a release liner having a top release surface and a bottom surface, a continuous layer of adhesive having a bottom surface and a top surface and end edges, wherein the bottom surface of the adhesive is adhered to the top release surface of the release liner such that the non-adhesive material forms have a top surface wherein the top surface of the material forms is even with or below the plane of the top release surface of the release liner. The Examiner further contends that Rusincovitch et al. explicitly attempt to correct the disadvantages and deficiencies in Calhoun, mainly the use of glass microspheres by using ink instead of the microspheres of Calhoun. It is the Examiner's position that it would have been obvious to one of ordinary skill in the art to have modified Calhoun et al. by replacing the glass microspheres with the non-adhesive material ink as taught by Rusincovitch in order to provide a repositionable adhesive wherein the non-material forms are not noticeable when viewing the substrate from the facestock surface.

It is the Examiner's position that the combination of the teachings of Rusincovitch and Calhoun ('790) demonstrate a functional equivalence between the positioning of the non-adhesive material forms. The Examiner has stated on page 14 of the final rejection:

> Whether the Applicant views the teachings of Rusincovitch et al. as teaching the non-adhesive material forms partially or fully embedded, the positioning of the non-adhesive material forms still performs the same function whether or not they are fully embedded or partially embedded. Therefore, depending on the desired end product and in the absence of any unexpected

> results, it would have been obvious to one of ordinary skill in the art at the time Applicants invention was made to have positioned the non-adhesive material forms in any functionally equivalent fashion (i.e. partially or fully embedded). Furthermore, it would have been obvious to arrange the non-adhesive material forms such that they are at or below the surface of the release liner since it has been held that rearranging parts of an invention involves only routine skill in the art, absent a demonstration of unexpected results. *In re Japikse*, 86 USPQ 70.

Applicants' Response and Remarks

Applicants respectfully submit that there is no basis for the Examiner's contention. Calhoun ('790) discloses a pressure sensitive tape or sheet having a plurality of spaced clumps of substantially adhesive free particles uniformly distributed over at least one surface of the adhesive layer (col. 2, lines 61-67). The pressure sensitive tape with the substantially adhesive free clumps is disclosed as being repositionable (col. 2, lines 56-60) and as possessing slidability (Examples 2, 4, and 6). Rusincovitch et al. at column 2, lines 21-24 acknowledge the disadvantages and defects of the prior art, which includes Calhoun '790 (col. 1, line 54 to col. 2, line 17.) However, Rusincovitch's solution is to print spacers on the surface of a release liner and then coat the release liner with an adhesive, so that the spacers protrude from the surface of the release liner. Rusincovitch does not teach or suggest printing non-adhesive material forms onto the surface of the release liner and then embedding the non-adhesive material forms so that the top surface of the non-adhesive material forms is even with or below the plane of the top release surface of the release liner.

As discussed above, the Examiner's reliance on In re Japikse in support of his position that rearranging the non-adhesive material forms would have been routine is without merit. In the present invention, "shifting the position" of the non-adhesive material forms would significantly modify the operation of the adhesive article. The characteristics of air-egress, repositionability and slidability depend on the position of the non-adhesive material forms relative to the adhesive surface of the adhesive layer. (See paragraph 0042, lines 7-9 of the specification.) Furthermore, even if "shifting the position" of the non-adhesive material forms did not modify the operation of the adhesive article, there is no

motivation provided by Rusincovitch to provide such modification, particularly since Rusincovitch specifically acknowledges the deficiencies of the prior art, which includes Calhoun ('790). Rusincovitch's solution to the deficiencies of Calhoun is to replace the spaced clumps of Calhoun with spacers of ink printed on the release liner. However, Rusincovitch fails to teach the further modification of embedding the spacers of ink into the release liner or to suggest the desirability of the modification.

The Federal Circuit has repeatedly warned that the requisite motivation to modify a reference must come from the prior art, not from what is taught by an Applicant for a patent. Rusincovitch contains no suggestion of embedding the non-adhesive material forms comprising polymeric ink into the release liner so that the upper surface of the non-adhesive material forms is even with or below the surface of the release surface of the release liner. As noted in In re Gordon, 733 F2d, 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984), the mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art would suggest the desirability of the modification.

Because there is no motivation provided in Rusincovitch to modify the spaced clumps of Calhoun to provide an adhesive article wherein the non-adhesive material forms comprising polymeric ink are embedded into the release liner so that the upper surface of the non-adhesive material forms is even with or below the surface of the release surface of the release liner, the rejection of claims 31-33, 35-40, 42, 43, 46, 49-53, 55 and 59 based on Calhoun ('790) in view of Rusincovitch should be reversed.

C. Claims 47 and 48 are not obvious over Calhoun et al. (U.S. Patent 5,141,790) in view of Rusincovitch et al. (U.S. Patent 5,676,787) and further in view of Plamthottam et al. (U.S. Patent 5,180,635).

The Examiner's Rejection

The Examiner contends that Calhoun and Rusincovitch teach the adhesive article of Applicants' invention and that although they fail to teach porous, elastomeric non-adhesive material forms, it would have been obvious to one of ordinary skill in the art to modify Calhoun and Rusincovitch to include porous elastomeric materials as taught by Plamthottam et al. in order to reduce the density of the carrier layers, improve peel adhesion and thereby improve conformability and the strength of the adhesive article.

Applicants' Response and Remarks

Claims 47 and 48 are dependent from claim 31. These claims further define the non-adhesive material. Specifically, claim 47 defines the non-adhesive material as comprising a porous material, and claim 48 defines the porous material as comprising an elastomer.

Applicants respectfully submit that there is no basis for the Examiner's contention. Plamthottam et al. is directed to a pressure sensitive adhesive tape in which the adhesive layer is made up of a rubber based adhesive matrix within which microspheres are mixed. The microspheres may be solid, hollow or porous and rigid or elastomeric. Planthottam does not disclose, teach or suggest an adhesive article having non-adhesive material forms embedded into the surface of a release liner. Rather, Planthottam teaches microspheres mixed into an adhesive matrix. There is no teaching or suggestion in any one of Planthottam, Calhoun and Rusincovitch to substitute the microspheres in the adhesive matrix of Planthottam for the spaced surface clumps of Calhoun or the surface printed spacers of Rusincovitch. Furthermore, even if there were a teaching or suggestion for such a modification, the resulting adhesive article would not be the adhesive article as claimed by Applicant. As discussed above, Applicants claimed adhesive article includes non-adhesive material forms comprising a polymeric ink that are embedded into the release liner even with or below the upper surface of the release liner. None of Calhoun, Rusincovitch and Planthottam, alone or in combination, disclose, teach or suggest the adhesive article as claimed by Applicant. Accordingly, for the reasons given above with respect to claims 31-33, 35-40, 42, 43, 46, 49-53, 55 and 59 the Examiner's rejection of claims 47 and 48 should be reversed.

D. Claims 54 and 56-58 are not obvious over Calhoun et al. (U.S. Patent 5,141,790) in view of Rusincovitch et al. (U.S. Patent 5,676,787) and further in view of Calhoun et al. (5,585,178).

The Examiner's Rejection

The Examiner has maintained that it would have been obvious through routine experimentation, based on the teachings of Calhoun ('178) to have used multiple layers of adhesive in an adhesive article for the purpose of providing varying properties to

the article, wherein one adhesive provides repositionability and the second adhesive builds bond strength through aging.

Applicants' Response and Remarks

Applicants respectfully submit that there is no basis for the Examiner's contention. Calhoun ('178) teaches a composite adhesive, or in other words, a single adhesive layer made up of two distinct adhesives having different viscoelastic properties. The Examiner has mischaracterized Calhoun ('178). Fig. 4 upon which the Examiner has relied for the teaching of two distinct adhesive layers is actually an illustration of roll of tape that is partially unwrapped. (Col. 7, lines 1-5.) Applicant's invention as claimed in claims 56-58 includes two separate adhesive layers, separated by a release liner. Applicants' invention as claimed in claim 54 includes two release liners separated by an adhesive layer. Furthermore, as discussed above, Calhoun ('790) and Rusincovitch, do not disclose, teach or suggest the adhesive article as claimed by Applicant, and Calhoun ('178) does not cure the deficiencies of Calhoun ('790) and Rusincovitch. Accordingly, for the reasons given above with respect to claims 31-33, 35-40, 42, 43, 46, 49-53, 55 and 59 the Examiner's rejection of claims 54 and 56-58 should be reversed.

E. Claims 60-62, 66-72 and 74 are not obvious over Calhoun et al. (U.S. Patent 5,141,790) in view of Torobin (U.S. Patent 4,582,534).

The Examiner's Rejection

The Examiner has maintained that although Calhoun ('790) fails to teach the use of vacuum metalized or sputtered non-adhesive material forms, it would have been obvious through routine experimentation to one of ordinary skill in the art to have modified a glass microsphere by including a vacuum metalized or sputtered metal layer on the microsphere for the purpose of providing a substrate with microspheres superior in strength while light in weight as taught by Torobin. The Examiner contends that Torobin teaches the use of glass microspheres with a vacuum metallized or sputtered layer of thin metal.

Applicants' Response and Remarks

Applicants respectfully submit that there is no basis for the Examiner's contention. Claim 60 recites that the non-adhesive material forms are vacuum metalized or sputtered deposits. Torobin does not even disclose glass microspheres having a vacuum

metalized or sputtered layer of metal deposited on the surfaces of the glass microspheres as stated by the Examiner. Rather, Torobin discloses hollow metal vacuum microspheres that are microspheres made of metal alloy materials and compositions, which on rapid cooling from a temperature above their liquidus temperature to below their glass temperature can form amorphous solids. (col. 12. lines 24-31). The microspheres are not vacuum metalized or sputtered. Rather, the inner volume of the hollow microspheres contain a high vacuum produced by condensing a metal vapor used to blow the microspheres. (col. 5, lines 64-68.) The blown metal microspheres of Torobin are disclosed as being useful in structural materials and structural systems (col. 3, lines 19-22) and as having superior strength while being light weight (col. 5, lines 50-55). There is no teaching whatsoever of vacuum metalized or sputtered microspheres or deposits. Thus the Examiner has mischaracterized the teaching of Torobin.

Furthermore, as stated above, Calhoun ('790) discloses individual particles or clumps of particles that are used to fill a depression in a carrier web. Substituting the blown metal microspheres of Torbin into the adhesive tape of Calhoun would not result in the invention as claimed by Applicants. Accordingly, Applicants respectfully submit that the Examiner's rejection of claims 60-62, 66-72 and 74 should be reversed.

F. Claims 63-65 are not obvious over Calhoun et al. (U.S. Patent 5,141,790) in view of Torobin (U.S. Patent 4,582,534) and further in view of GB 1,511,060.

The Examiner's Rejection

The Examiner has maintained that it would have been obvious through routine experimentation to one of ordinary skill in the art to have used a grid pattern in an adhesive article for the purpose of achieving the air egressing effect as taught by GB '060. It is the Examiner's contention that while Calhoun ('790) and Torobin teach the adhesive article, they fail to teach that the microspheres of Calhoun ('790) can be in the form of a grid in which at least 50% of the lines intersect the edges of the article and fail to teach lines having a width of from about 12 microns to about 250 microns and an average thickness of from about 30 nanometers to about 3000 nanometers. The Examiner further contends that it would have been obvious to one of ordinary skill in the art to have modified the aforementioned prior art to include a grid pattern as taught by GB '060 in order to allow

the non-adhesive material forms to form a pattern that can effectively achieve the air egressing effect.

Applicant's Response and Remarks

Applicants respectfully submit that there is no basis for the Examiner's contention. Claims 63-65 depend from claim 60 and therefore include the recitation that the non-adhesive material forms comprise vacuum metalized or sputtered deposits. As discussed above, the Examiner has mischaracterized the teaching of Torobin. There is no teaching whatsoever of vacuum metalized or sputtered microspheres or deposits.

Calhoun ('790) discloses individual particles or clumps of particles that are used to fill a depression in a carrier web. The disclosure of GB '060 does not cure the deficiencies of Calhoun and Torobin. Substituting the blown metal microspheres of Torobin into the adhesive tape of Calhoun and then further modifying the adhesive tape of Calhoun to include a plurality of clumps in the form of a line or grid would not result in the invention as claimed by Applicants. Neither Calhoun ('790) nor Torobin nor GB '060, alone or in combination, disclose or suggest vacuum metalized or sputtered deposits of non-adhesive material forms embedded into the release surface of the release liner. Accordingly, Applicants respectfully submit that the rejection of claims 63-65 should be reversed.

G. Claims 73 and 75-77 are not obvious over Calhoun et al. (U.S. Patent 5,141,790) in view of Torobin (U.S. Patent 4,582,534) and further in view of Calhoun et al. (U.S. Patent 5,585,178).

The Examiner's Rejection

The Examiner has maintained that it would have been obvious to one of ordinary skill to have modified Calhoun ('790) and Torobin ('534) to include a second layer of adhesive as taught by Calhoun ('178) in order to provide an adhesive article with varying properties via the use of multiple adhesives wherein one adhesive provides the article with repositionability and the other builds bond strength through aging and is bonded to a facestock.

Applicants' Response and Remarks

Applicants respectfully submit that there is no basis for the Examiner's contention. Calhoun ('178) teaches a composite adhesive, or in other words, a single

adhesive layer made up of two distinct adhesives having different viscoelastic properties. The Examiner has mischaracterized Calhoun ('178). Fig. 4 upon which the Examiner has relied for the teaching of two distinct adhesive layers is actually an illustration of roll of tape that is partially unwrapped. (Col. 7, lines 1-5.) Applicants' invention as claimed in claims 75-77 includes two separate adhesive layers, separated by a release liner. Applicants' invention as claimed in claim 73 includes two release liners separated by an adhesive layer. Furthermore, claims 73 and 75-77depend from claim 60 and therefore include the recitation that the non-adhesive material forms comprise vacuum metalized or sputtered deposits. As discussed above, the Examiner has mischaracterized the teaching of Torobin. There is no teaching whatsoever of vacuum metalized or sputtered microspheres or deposits.

The combination of the teachings of Calhoun ('790), Torobin and Calhoun ('178), even if properly made, would not result in the invention as claimed by Applicants. Accordingly, Applicants respectfully submit that the Examiner's rejection of claims 73 and 75-77 should be reversed.

IX. CONCLUSION

For the foregoing reasons, Appellants respectfully submit that the claimed invention is not rendered obvious by U.S. 5,676,787 or U.S. 5,141,790, or the combination of both or either of these references with the secondary references relied upon by the Examiner. This honorable Board is requested to reverse the Examiner's rejections of all of the claims pending in the application and to allow these claims.

Respectfully submitted,
RENNER, OTTO, BOISSELLE & SKLAR, L.L.P.

By Heidi A. Boehlefeld
Heidi A. Boehlefeld
Reg. No. 34,296

1621 Euclid Avenue
Nineteenth Floor
Cleveland, Ohio 44115-2191
(216) 621-1113

APPENDIX

31. An adhesive article comprising:

a release liner having a top release surface and a bottom surface;

a continuous layer of adhesive having a bottom surface and a top surface and end edges, wherein the bottom surface of the adhesive is adhered to the top release surface of the release liner; and

a pattern of non-adhesive material forms embedded into the top release surface of the release liner, said non-adhesive material forms comprising a polymeric ink and having a top surface, wherein the top surface of the non-adhesive material forms is even with or below the plane of the top release surface of the release liner.

32. The adhesive article of claim 31 wherein a facestock is applied to the top surface of the adhesive layer.

33. The adhesive article of claim 31 wherein the non-adhesive material forms have an average thickness of about 30 nanometers to about 100μ.

35. The adhesive article of claim 31 wherein the pattern of non-adhesive material forms comprises a plurality of printed non-adhesive material forms.

36. The adhesive article of claim 31 wherein the non-adhesive material comprises at least one UV curable ink.

37. The adhesive article of claim 31 wherein the pattern of non-adhesive material forms comprises a plurality of dots, lines or combinations thereof.

38. The adhesive article of claim 31 wherein the pattern of non-adhesive material forms comprises a plurality of lines having an average width of from about 12μ to about 250μ and an average thickness of from about 30 nanometers to about 100μ.

39. The adhesive article of claim 31 wherein the pattern of non-adhesive material forms comprises a plurality of lines, and wherein at least 50% of the lines intersect the end edges of the adhesive layer.

40. The adhesive article of claim 31 wherein the pattern of non-adhesive material forms comprises a plurality of lines, and wherein the lines form a grid pattern.

42. The adhesive article of claim 31 wherein the adhesive layer comprises a pressure sensitive adhesive.

43. The adhesive article of claim 31 wherein the adhesive layer comprises a heat-activated adhesive.

46. The adhesive article of claim 31 wherein the non-adhesive material comprises a coalesced ink.

47. The adhesive article of claim 31 wherein the non-adhesive material comprises a porous non-adhesive material.

48. The adhesive article of claim 47 wherein the porous non-adhesive material comprises an elastomer.

49. The adhesive article of claim 31 wherein the top surfaces of the non-adhesive material forms are below the plane of the top release surface of the release liner.

50. The adhesive article of claim 31 wherein the release surface of the release liner has a textured surface.

51. The adhesive article of claim 50 wherein the release surface has a random texture.

52. The adhesive article of claim 50 wherein the release surface has a patterned finish.

53. The adhesive article of claim 50 wherein the bottom surface of the adhesive layer has a textured surface that is complimentary to the textured surface of the release liner.

54. The adhesive article of claim 31 further comprising a second release liner adhered to the top surface of the adhesive.

55. The adhesive article of claim 31 wherein the bottom surface of the release liner has a release coating thereon.

56. The adhesive article of claim 55 further comprising a second adhesive layer having a top and bottom surface adhered to the release liner, the top surface of the second adhesive in contact with the bottom surface of the release liner.

57. The adhesive article of claim 56 further comprising a facestock adhered to the top surface of the first adhesive layer or the bottom surface of the second adhesive layer.

58. The adhesive article of claim 56 further comprising a facestock adhered to the bottom surface of the second adhesive layer.

59. An adhesive article comprising:

a release liner having a release surface and a bottom surface;

a continuous layer of adhesive having a bottom surface and a top surface and end edges, wherein the bottom surface of the adhesive is adhered to the release surface of the release liner;

a pattern of non-adhesive material forms embedded into the release surface of the release liner, wherein the non-adhesive material forms comprise a polymeric ink and wherein the top surface of the non-adhesive material forms is even with or below the plane of the release surface of the release liner; and

a facestock adhered to the top surface of the adhesive layer, wherein the thickness of the non-adhesive material forms is sufficient to result in deformation of the facestock upon application of the adhesive article to a substrate.

60. An adhesive article comprising:

a release liner having a release surface and a back surface;

a continuous layer of adhesive having a front surface and a back surface and end edges, wherein the front surface of the adhesive is adhered to the release surface of the release liner; and

a pattern of vacuum metalized or sputtered deposits of non-adhesive material forms embedded into the release surface of the release liner, said non-adhesive material forms having a top surface.

61. The adhesive article of claim 60 wherein a facestock is applied to the back surface of the adhesive layer.

62. The adhesive article of claim 60 wherein the pattern of non-adhesive material forms comprises a plurality of dots, lines or combinations thereof.

63. The adhesive article of claim 60 wherein the pattern of non-adhesive material forms comprises a plurality of lines having an average width of from about 12μ to about 250μ, and an average thickness of from about 30 nanometers to about 3000 nanometers.

64. The adhesive article of claim 60 wherein the pattern of non-adhesive material forms comprises a plurality of lines, and wherein at least 50% of the lines intersect the end edges of the adhesive layer.

65. The adhesive article of claim 60 wherein the pattern of non-adhesive material forms comprises a plurality of lines, and wherein the lines form a grid pattern.

66. The adhesive article of claim 60 wherein the non-adhesive material forms have an average thickness of about 30 to about 3000 nanometers.

67. The adhesive article of claim 60 wherein the adhesive layer comprises a pressure sensitive adhesive.

68. The adhesive article of claim 60 wherein the adhesive layer comprises a heat-activated adhesive.

69. The adhesive article of claim 60 wherein the release surface of the release liner has a textured surface.

70. The adhesive article of claim 69 wherein the release surface has a random texture.

71. The adhesive article of claim 69 wherein the release surface has a patterned finish.

72. The adhesive article of claim 69 wherein the lower surface of the adhesive layer has a textured surface that is complimentary to the textures surface of the release liner.

73. The adhesive article of claim 60 further comprising a second release liner adhered to the back surface of the adhesive.

74. The adhesive article of claim 60 wherein the back surface of the release liner has a release coating thereon.

75. The adhesive article of claim 74 further comprising a second adhesive layer having a front and back surface adhered to the release liner, the front surface of second adhesive in contact with the back surface of the release liner.

76. The adhesive article of claim 75 further comprising facestock adhered to the back surface of the second adhesive layer.

77. The adhesive article of claim 75 further comprising a facestock adhered to back surface of the second adhesive layer.